



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,330	07/08/2003	Kwang-Il Jung	P-0486	7340

34610 7590 01/04/2007
FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER

MILLER, BRANDON J

ART UNIT PAPER NUMBER

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/614,330

Applicant(s)

JUNG, KWANG-IL

Examiner

Brandon J. Miller

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (US 6,560,214 B1) in view of Leatherbury et al. (US 2002/0126685 A1).

Regarding claim 1 Kikinis teaches a system for multi-accessing a radio communication data call (see col. 4, lines 3-15). Kikinis teaches a plurality of user equipments controlling allocation of a radio resource (see col. 4, lines 23-28 and col. 6, lines 57-60, hand held units relate to user equipments). Kikinis teaches a multi-access system for multi-accessing the plurality of user equipments to one or more radio communication terminals based on the allocation (see col. 4, lines 44-55, transceiver 400 relates to radio communication terminal). Kikinis does not specifically teach allocation of a radio resource according to a desired data transfer rate. Leatherbury teaches allocation of a radio resource according to a desired data transfer rate (see paragraph [0083]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include allocation of a radio resource according to a desired data transfer rate because allocating resources according to a data transfer rate as taught in Leatherbury would improve Kikinis's system of providing real-time data-network packet telephony in hand-held, portable communicators (see col. 3, lines 42-46).

Regarding claim 2 Kikinis teaches wherein the multi-access system comprises a multimedia system for interfacing with a plurality of user equipments by an Ethernet or a bluetooth method (see col. 4, lines 5-19 and col. 12, lines 14-16). Kikinis teaches a packet-call connection system for interfacing with one or more radio communication terminals by a USB or an RS232C method (see col. 6, lines 19-23 and col. 7, lines 34-45). Kikinis teaches a multi-access routing system for routing data of the plurality of user equipment transmitted from the multimedia system to the radio communication terminals according to a channel assignment method (see col. 4, lines 5-13 and col. 6, lines 57-64).

Regarding claim 3 Leatherbury teaches wherein the slot assignment method is set by a plurality of user equipment (see paragraph [0083], CIM relates to plurality of user equipment).

Regarding claim 4 Kikinis and Leatherbury teach a device as recited in claim 2 except for performing a one-on-one assignment for mapping the user equipment and the radio communication terminal; and a common sharing method for allowing one user equipment to share the plurality of radio communication terminals. Kikinis does teach performing a one-on-one assignment for assigning channels to user equipment (see col. 8, lines 42-46). Kikinis does teach allowing user equipment to share the radio communication terminal (see col. 4, lines 44-55). Leatherbury does teach mapping user equipment (see paragraph [0009]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include performing a one-on-one assignment for mapping the user equipment and the radio communication terminal; and a common sharing method for allowing one user equipment to share the plurality of radio communication terminals because allocating resources

Art Unit: 2617

would allow for improved real-time data-network packet telephony in hand-held, portable communicators.

Regarding claim 6 Leatherbury teaches setting a slot assignment method according to a command of the user equipment, assigning a slot to the user equipment according to the set slot assignment method and routing a transmission/reception data between the user equipment and the radio communication terminal (see paragraphs [0009] & [0074]).

Regarding claim 7 Kikinis teaches a method for multi-accessing a radio communication data call (see col. 4, lines 3-15). Kikinis teaches setting a data call multi-access mode according to a command of user equipment (see col. 4, lines 23-28 and col. 6, lines 57-60, hand held units relate to user equipments). Kikinis teaches data-management of a plurality of user equipments to a radio communication terminal according to a set call multi-access mode (see col. 4, lines 44-55 and col. 8, lines 40-46 & 55-60, transceiver relates to radio communication terminal). Kikinis teaches transmitting reception data to user equipment (see col. 8, lines 44-46). Kikinis does not specifically teach mapping transmission data of a plurality of user equipments to a plurality of radio terminals, storing IP addresses of transmission data and user equipment addresses of transmission data by radio communication terminal; searching user equipment addresses by radio communication terminals by using the IP addresses of the reception data transmitted from the plurality of radio communication terminals. Leatherbury teaches mapping transmission data of a plurality of user equipments to a plurality of radio terminals (see paragraph [0074] and FIG. 1, distribution hubs relates to radio terminals and subscriber destinations relate to user equipments). Leatherbury teaches storing IP addresses of transmission data and user equipment addresses of transmission data; and searching user equipment addresses by using the IP addresses of the

Art Unit: 2617

reception data (see paragraphs [0009] & [0074], distribution hubs relates to radio terminals and subscriber destinations relate to user equipment). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include mapping transmission data of a plurality of user equipments to a plurality of radio terminals, storing IP addresses of transmission data and user equipment addresses of transmission data by radio communication terminal; searching user equipment addresses by radio communication terminals by using the IP addresses of the reception data transmitted from the plurality of radio communication terminals because mapping transmission data using IP addresses of the transmission data as taught in Leatherbury would improve Kikinis's system of providing real-time data-network packet telephony in hand-held, portable communicators (see col. 3, lines 42-46).

Regarding claim 8 Leatherbury teaches assigning transmission data by user equipments to time slots by radio communication terminals according to a multi-access method (see paragraphs [0009] & [0074]).

Regarding claim 9 Kikinis teaches wherein the user terminal address includes a data link address of a user equipment (see col. 9, lines 45-47 and col. 12, lines 30-36).

Regarding claim 10 Kikinis teaches a method for multi-accessing a radio communication data call (see col. 4, lines 3-15). Kikinis teaches receiving transmission data from a plurality of user equipments (see col. 4, lines 44-51). Kikinis teaches identifying a type of the transmission data and performing a corresponding command if the transmission data is data for controlling multi-access system (see col. 7, lines 34-52). Kikinis teaches data-management of a plurality of user equipments to a radio communication terminal according to a set call multi-access mode

Art Unit: 2617

(see col. 4, lines 44-55 and col. 8, lines 40-46 & 55-60, transceiver relates to radio communication terminal). Kikinis teaches receiving reception data to user equipment (see col. 8, lines 44-46). Kikinis does not specifically teach allocating a time slot of each radio communication terminal to the transmission data according to a set slot allocation method if the data is general data, storing IP addresses of transmission data and user equipment addresses of transmission data by radio communication terminal; searching user equipment addresses by radio communication terminals by using the IP addresses of the reception data and transmitted the reception data to a user equipment when there is a user equipment address of the IP address. Leatherbury teaches allocating a time slot of each radio communication terminal to the transmission data according to a set slot allocation method (see paragraph [0009]). Leatherbury teaches storing IP addresses of transmission data and user equipment addresses of transmission data; and searching user equipment addresses by using the IP addresses of the reception data (see paragraphs [0009] & [0074], distribution hubs relates to radio terminals and subscriber destinations relate to user equipment). Leatherbury teaches transmitting reception data to user equipment when the IP address matches (see paragraph [0074] and claim 1, subscriber destination relates to user equipment). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include allocating a time slot of each radio communication terminal to the transmission data according to a set slot allocation method if the data is general data, storing IP addresses of transmission data and user equipment addresses of transmission data by radio communication terminal; searching user equipment addresses by radio communication terminals by using the IP addresses of the reception data and transmitted the reception data to a user equipment when there is a user equipment address of the

Art Unit: 2617

IP address because mapping transmission data using IP addresses of the transmission data as taught in Leatherbury would improve Kikinis's system of providing real-time data-network packet telephony in hand-held, portable communicators (see col. 3, lines 42-46).

Regarding claim 11 Kikinis and Leatherbury teach a device as recited in claim 10 except for searching an IP address table of other radio communication terminal, if a user terminal address of the IP address is not in the IP address table; and transmitting a reception data using a searched user terminal address, if a user terminal address of the IP address is searched. Leatherbury does teach searching an IP address table of other communication terminals, when a an IP address needs to be located; and transmitting a reception data using a searched user terminal address, when a user terminal address of the IP address is searched (see paragraphs [0009] & [0074]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include searching an IP address table of other radio communication terminal, if a user terminal address of the IP address is not in the IP address table; and transmitting a reception data using a searched user terminal address, if a user terminal address of the IP address is searched because this would allow for improved real-time data-network packet telephony in hand-held, portable communicators.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (US 6,560,214 B1) in view of Leatherbury et al. (US 2002/0126685 A1) and Zaharychuk et al. (US 2002/0075803).

Regarding claim 5 Kikinis and Leatherbury teach a device as recited in claim 2 except for a plurality of physical data link control units provided in one-to-one correspondence with the plurality of user equipments and for controlling a physical data link; a TCP/IP control unit for

performing a TCP/IP protocol function on data transmitted from the plurality of physical data link control units; a command/response control unit for performing/responding to a command of the user equipments transmitted from the TCP/IP control unit; and a data control unit for sorting and buffering data transmitted from the TCP/IP control unit. Kikinis does teach a plurality of physical data link control units provided in one-to-one correspondence with a plurality of user equipments for controlling a physical data link (see col. 8, lines 42-46 & 55-60). Leatherbury does teach mapping user equipment (see paragraph [0009]). Zaharychuk teaches a TCP/IP control unit for performing a TCP/IP protocol function on data transmitted from the plurality of physical data link control units; a command/response control unit for performing/responding to a command of the user equipments transmitted from the TCP/IP control unit; and a data control unit (see paragraphs [0025] and FIG. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a plurality of physical data link control units provided in one-to-one correspondence with the plurality of user equipments and for controlling a physical data link; a TCP/IP control unit for performing a TCP/IP protocol function on data transmitted from the plurality of physical data link control units; a command/response control unit for performing/responding to a command of the user equipments transmitted from the TCP/IP control unit; and a data control unit for sorting and buffering data transmitted from the TCP/IP control unit because this would allow for improved dynamic optimization of a multi-service access device in response to data traffic being presented to the multi-service assess device.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (US 6,560,214 B1) in view of Leatherbury et al. (US 2002/0126685 A1) and Vance (US 7,151,928 B2).

Regarding claim 12 Kikinis and Leatherbury teach a device as recited in claim 10 except for displaying a state of a multi-access system to a corresponding user equipment, if the transmission data is data for displaying the state of the multi-access system; and changing the slot assignment method according to a command of the corresponding user equipment, if the transmission data is data for changing the slot assignment method of the multi-access system. Leatherbury does teach changing slot assignments according to a command of corresponding user equipment (see paragraphs [0009] & [0074]). Vance teaches displaying a state of a multi-access system to corresponding user equipment, if the transmission data is data for displaying the state of the multi-access system (see col. 3, lines 4-11 & 35-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include displaying a state of a multi-access system to a corresponding user equipment, if the transmission data is data for displaying the state of the multi-access system; and changing the slot assignment method according to a command of the corresponding user equipment, if the transmission data is data for changing the slot assignment method of the multi-access system because this would allow for improved usage monitoring in a wireless telecommunication system.

Claim Objections

Claims 10 and 12 objected to because of the following informalities:

Art Unit: 2617

Regarding claims 10 and 12 it would be more clarifying if the first occurrence of the acronym MAS was spelled out with the acronym following it in parenthesis. Appropriate correction is required.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sugimoto U.S Patent No. 6,934,545 B2 discloses a mobile communication terminal apparatus, control circuit, and handoff control method.

Lucidarme et al. U.S. Patent No. 7,123,910 B2 discloses a system and method for message redirection between mobile telecommunication networks with technologies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869.

The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to be 'B. Eng'.

December 26, 2006

A handwritten signature in black ink, appearing to be 'George Eng'.

GEORGE ENG
SUPERVISORY PATENT EXAMINER